

#### REMARKS/ARGUMENTS

Applicant respectfully requests reconsideration and allowance of the subject application.

Claims 1-33 were originally submitted.

Claims 1, 19, 20 and 29 are currently amended.

No claims are canceled.

No new claims have been added.

Claims 1-33 remain in this application.

35 U.S.C. §101

Independent Claims 1, 7, 15, 19, 21 and 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The dependent claims are further rejected based on their dependencies on the rejected base claims. Applicant respectfully traverses the rejection.

Claim 1 has been amended to address this rejection. Claims 2-6 depend upon claim 1, and overcome the objection based on their dependence to the amended claim 1.

Claim 29 has been amended to address this rejection. Claims 30-33 depend upon claim 29, and overcome the objection based on their dependence to the amended claim 29.

Claims 7, 19, 21 are method claims which fall under fall under process claims and therefore are statutory subject matter. Claim 15 is directed to computer-readable medium having stored there on an object. Therefore, claim 15 is directed to functional descriptive material recorded on some computer-readable

1 medium. Hence, claim 15 becomes structurally and functionally interrelated to the  
2 medium and is statutory. Claims 8-14 depend upon claim depend upon claim 7,  
3 and overcome the objection based on their dependence to the claim 7. Claims 16-  
4 18 depend upon claim depend upon claim 15, and overcome the objection based on  
5 their dependence to the amended claim 15. Claim 20 depends upon claim depend  
6 upon claim 19, and overcome the objection based on its dependence to the claim  
7 19. Claims 22-28 depend upon claim depend upon claim 21, and overcome the  
8 objection based on their dependence to the amended claim 21.

9 Therefore, Applicant respectfully requests that the 35 U.S.C. §101 rejection  
10 of claims 1-33 be withdrawn.

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12 **35 U.S.C. §112**

13 Independent Claims 19 and 20 are rejected under 35 U.S.C. 112 because the  
14 recite a trademark/trade name. Claims 19 and 20 have been amended to overcome  
15 the rejection. Therefore, Applicant respectfully requests that the 35 U.S.C. §112  
16 rejection of claims 19 and 20 be withdrawn.

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18 **35 U.S.C. §102**

19 Claims 1-33 have been rejected under 35 U.S.C. 102(b) as being anticipated  
20 by Jensenworth et al, United States Pat. No. 6,279,111 (Jensenworth). Applicant  
21 respectfully traverses the rejection.

22 Jensenworth teaches an improved security model for computer system. The  
23 model provides restricted access tokens, each of which are modified, restricted  
24 version of an access token created from an existing parent token. The restricted  
25 token has less access than the parent token from which it is copied and can be

1 created by changing one or more security identifiers that allow access in the parent  
2 token and not in the restricted token. The restricted token can also be created by  
3 removing one or more privileges from the restricted token which are present in the  
4 parent token.

5 A security context is set up for the user when the user logs on to the system  
6 and is authenticated. The access token is made which includes user and groups  
7 field, security identifier (security ID) based on user's credential and on basis of one  
8 or more group within the organization. When the user tries to start a process on a  
9 resource the kernel that is associated with the resource mode security compares the  
10 user's access to the action and the list of actions

11 Fig. 3, represents the invention as taught by Jensenworth, a process 70  
12 desiring access to an object 72 acquires the type of access it is granted (e.g., may  
13 be read and write for a word document). The kernel provides an associated token  
14 to the object manager 74. The object 72 has a security descriptor 76 and the token  
15 60 to the security mechanism 78. The contents of the security descriptors are  
16 determined by the owner of the object and comprises of access control list (ACL)  
17 which has the information about the access rights allowed to the token in form of a  
18 bitmask where each bit corresponds to permission (one bit is for read, the other  
19 one bit is for write etc). The security mechanism compares the security IDs in the  
20 token 60 with the action requested by the process 70 against the entries in ACL 80.  
21 If it is found that the user can be allowed access then a handle to the object is  
22 returned to the process else the access is denied.

23 The SACL 81 includes an audit entry having a group security identifier. It  
24 logs any failed attempt to write to a file object. The security descriptor 76 consists  
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1 of a list of ID's with the type of access allowed. For example, RO indicates read  
2 only, WR means both read and write access etc.

3 **Independent claim 1**, recites “[a] kernel-level transaction system,  
4 comprising:

5 a memory;  
6 one or more processors operatively coupled to the memory;  
7 plural kernel objects to implement a transaction having plural  
8 operations; and  
9 a security descriptor, applied to at least one of the kernel objects, to  
10 identify at least one user, to identify one of the operations of the transaction  
11 that may be performed on the kernel object to which the security descriptor  
12 is applied, and to identify a right indicating that the identified user is  
13 permitted or prohibited to perform the operation.

14 Jensenworth does not teach or show “one of the operations of the  
15 transaction that may be performed on the kernel object to which the security  
16 descriptor is applied” as recited in claim 1. As discussed above, Jensenworth  
17 teaches a security model using restricted tokens. When a process starts, the kernel  
18 mode security mechanism first compares the user based security identifiers and  
19 intended type of action against a list of identifiers that is associated with the  
20 source. Jensenworth shows that the kernel objects are used only for the  
21 identification of the correct user as per security requirements. An object manager  
22 is also described that handles the associated token provided by the kernel. The  
23 kernel object includes the security descriptor that only performs the identification  
24 check but the transaction process is carried out outside the kernel object.

1 On the other hand, the application describes one of the operations of the  
2 transaction that may be performed on the kernel object to which the security  
3 descriptor is applied. The application describes a transaction management  
4 functionality implemented by kernel objects. The kernel objects further include a  
5 transaction object, a resource management object and an enlistment object.  
6 Therefore, the application describes that complete transaction process is carried  
7 out by Kernel objects.

8 Accordingly, Jensenworth does not show every element of claim 1, and the  
9 rejection of claim 1 is therefore improper. Accordingly, Applicant respectfully  
10 request that the §102 rejection of claim 1 be withdrawn.

11 **Dependent claims 2-6** depend from claim 1, and are allowable at the least  
12 for reasons provided in support of claim 1. Accordingly, Applicant respectfully  
13 request that the §102 rejection of claims 2-6 be withdrawn.

14 Claim 2 further recites “a transaction object to represent a transaction; a  
15 resource manager object to represent a resource participating in the transaction;  
16 and an enlistment object to enlist participants in the transaction.”

17 Jensenworth fails to teach or show “the plural kernel objects include: a  
18 transaction object to represent a transaction; a resource manager object to represent  
19 a resource participating in the transaction; and an enlistment object to enlist  
20 participants in the transaction” as recited in claim 2. Jensenworth teaches a  
21 security model using restricted tokens. When a process starts, the kernel mode  
22 security mechanism first compares the user based security identifiers and intended  
23 type of action against a list of identifiers that is associated with the source.  
24 Jensenworth teaches that the kernel objects are used only for the identification of  
the correct user as per security requirements. An object manager is taught that

1 handles the associated token provided by the kernel. The kernel object includes  
2 the security descriptor that only performs the identification check, but the  
3 transaction process is carried out outside the kernel object.

4 The application shows a transaction management functionality implemented  
5 by kernel objects. The kernel objects further include a transaction object, a  
6 resource management object and an enlistment object. The application describes  
7 that complete transaction process is carried out by kernel objects.

8 Claim 6 further recites "and the operation identified by the security  
9 descriptor includes at least one of: get information regarding the enlistment object,  
10 set information regarding the enlistment object, determine a state of enlistments at  
11 a moment of transaction failure, obtain and reference an enlistment key, rollback  
12 the transaction and to respond to notifications, and perform operations a superior  
13 transaction manager would perform."

14 Jensenworth does not teach or show this element. Jensenworth teaches that  
15 a user is allotted a restricted token and whenever the user logs in a check is made  
16 to determine if the user has that restricted token or the parent token. If the token is  
17 the restricted token, then another check is made to determine what all privileges  
18 are given to the user by comparing the restricted with a list of already defined  
19 rights. If both the checks are cleared then only the user gets the right to access  
20 data, otherwise the access is denied. Jensenworth does not teach or show that the  
21 process that has to be followed if a transaction fails or is interrupted.

22 The application describes that whenever an operation fails, then all the  
23 operations that are being performed are stopped and the data that is being  
24 transferred gets stored. The transaction is rolled back and notifications are sent.

1       **Independent claim 7** recites “[a] method of implementing a kernel-level  
2 transaction, comprising:

3               attaching a security descriptor to at least one of plural kernel objects  
4 utilized in a transaction; and

5               performing an operation for a transaction on the at least one kernel  
6 object in accordance with the rights accorded by the security descriptor  
7 attached to the at least one kernel object.

8       Jensenworth does not teach or show “performing an operation for a  
9 transaction on the at least one kernel object in accordance with the rights accorded  
10 by the security descriptor attached to the at least one kernel object” as recited in  
11 claim 7. Claim 7 benefits from similar arguments presented in support of claim 1.

12       Accordingly, Jensenworth does not show every element of claim 7, and the  
13 rejection of claim 7 is therefore improper. Accordingly, Applicant respectfully  
14 request that the §102 rejection of claim 7 be withdrawn.

15       **Dependent claims 8-14** depend from claim 7, and are allowable at the least  
16 for reasons provided in support of claim 7. Accordingly, Applicant respectfully  
17 request that the §102 rejection of claims 8-14 be withdrawn.

18       Claim 14 further benefits from reasons provided in support of claim 6.

19       **Independent claim 15** recites “[a] computer-readable medium having  
20 stored thereon an object attached to a kernel object, the object comprising:

21               a first data entry identifying at least one user;

22               a second data entry identifying an operation capable of being  
23 performed on the kernel object by the user identified by the first data entry;  
24 and

1 a third data entry indicating a right for the user identified by the first  
2 data entry to perform the operation identified by the second data entry.

3 Jensenworth does not teach or show “identifying an operation capable of  
4 being performed on the kernel object” as recited in claim 15. Claim 15 benefits  
5 from similar arguments presented in support of claim 1.

6 Accordingly, Jensenworth does not show every element of claim 15, and the  
7 rejection of claim 15 is therefore improper. Accordingly, Applicant respectfully  
8 request that the §102 rejection of claim 15 be withdrawn.

9 **Dependent claims 16-18** depend from claim 15, and are allowable at the  
10 least for reasons provided in support of claim 15. Accordingly, Applicant  
11 respectfully request that the §102 rejection of claims 16-18 be withdrawn.

12 Claim 18 further benefits from reasons provided in support of claim 6.

13 **Independent claim 19** recites “[a] transaction method, comprising:

14 implementing a transaction among kernel objects; and  
15 securing the transaction utilizing an operating system security model  
16 that applies a security descriptor to at least one of the kernel objects  
17 participating in the transaction.

18 Jensenworth does not teach or show “applyies a security descriptor to at  
19 least one of the kernel objects participating in the transaction”, as recited in claim  
20 19. Jensenworth teaches a security model using restricted tokens. When a process  
21 starts, the kernel mode security mechanism first compares the user based security  
22 identifiers and intended type of action against a list of identifiers that is associated  
23 with the source. Jensenworth describes that the kernel objects are used only for the  
24 identification of the correct user as per security requirements. An object manager  
25 is described that handles the associated token provided by the kernel. The kernel

1 object includes the security descriptor that only performs the identification check  
2 but the transaction process is carried out outside the kernel object.

3 The application describes one of the operations of the transaction that may  
4 be performed on the kernel object to which the security descriptor is applied. The  
5 application describes a transaction management functionality implemented by  
6 kernel objects. The kernel objects further include a transaction object, a resource  
7 management object and an enlistment object. Therefore, the application describes  
8 that complete transaction process is carried out by Kernel objects.

9 Accordingly, Jensenworth does not show every element of claim 19, and the  
10 rejection of claim 19 is therefore improper. Accordingly, Applicant respectfully  
11 request that the §102 rejection of claim 19 be withdrawn.

12 **Dependent claim 20** depends from claim 19, and is allowable at the least  
13 for reasons provided in support of claim 19. Accordingly, Applicant respectfully  
14 request that the §102 rejection of claim 20 be withdrawn.

15 **Independent claim 21** recites “[a] method of implementing a transaction,  
16 comprising:

17 attaching a security descriptor to at least one of plural objects  
18 utilized in a transaction; and

19 performing an operation for a transaction on the at least one object in  
20 accordance with the rights accorded by the security descriptor attached to  
21 the at least one object.

22 Jensenworth does not teach or show “performing an operation for a  
23 transaction on the at least one object in accordance with the rights accorded by the  
24 security descriptor attached to the at least one object” as recited in claim 21.  
25 Claim 21 benefits from similar arguments presented in support of claim 1.

1           Accordingly, Jensenworth does not show every element of claim 21, and the  
2 rejection of claim 21 is therefore improper. Accordingly, Applicant respectfully  
3 request that the §102 rejection of claim 21 be withdrawn.

4           **Dependent claims 22-28** depend from claim 21, and are allowable at the  
5 least for reasons provided in support of claim 21. Accordingly, Applicant  
6 respectfully request that the §102 rejection of claims 22-28 be withdrawn.

7           Claim 28 further benefits from reasons provided in support of claim 6.

8           **Independent claim 29** recites “[a] kernel-level transaction system,  
9 comprising:

10           a memory;  
11           one or more processors operatively coupled to the memory;  
12           means for implementing a transaction among kernel objects; and  
13           means for securing the transaction by applying a security descriptor  
14 to at least one of the kernel objects,

15           wherein the security descriptor identifies at least one user, an  
16 operation to be performed on the kernel object to which the security  
17 descriptor is applied, and a right indicating that the identified user is  
18 permitted or prohibited to perform the operation.

19           Jensenworth does not teach or show “means for securing the transaction by  
20 applying a security descriptor to at least one of the kernel objects, wherein the  
21 security descriptor identifies at least one user, an operation to be performed on the  
22 kernel object to which the security descriptor is applied” as recited in claim 29.  
23           Claim 29 benefits from similar arguments presented in support of claim 1.

1           Accordingly, Jensenworth does not show every element of claim 29, and the  
2 rejection of claim 29 is therefore improper. Accordingly, Applicant respectfully  
3 request that the §102 rejection of claim 29 be withdrawn.

4           **Dependent claims 30-33** depend from claim 29, and are allowable at the  
5 least for reasons provided in support of claim 29. Accordingly, Applicant  
6 respectfully request that the §102 rejection of claims 30-33 be withdrawn.

7           Claim 30 further benefits from reasons provided in support of claim 6.

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## **CONCLUSION**

All pending claims 1-33 are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the subject application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

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